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The personalities and problems of 60 years ago

Ian Fraser

PERSONALITIES

World War I was just finishing when in 1918 I went up to Queen's. Returning ex-servicemen made this the largest year there had ever been, as it was in most universities in the UK. This made many problems for those seeking appointments later on: I myself applied for 20 posts in London as a house surgeon, but I was turned down for them all. In the anatomy department, for instance, with shortage of bodies, there would be at least 28 people round each cadaver, so that teaching was very difficult. Most of the ex-service people were keen, perhaps some too keen: 'O's the observant, intelligent student
Exposing the patient just more than is prudent'.

I remember in a botany lecture my neighbour saying 'I am not at all interested in this xylem and phloem stuff — I want to know when the pubs open'. Today I see this man's name on vans throughout Ulster successfully selling Frigidaires — so xylem and phloem really did not matter! In addition we also got back more senior people who were to become our teachers and mentors. Two of these, Andrew Fullerton and W W D Thomson, were later to become, respectively, professors of surgery and medicine. There were also many changes in staff due to either death or retirement, so that I look on my period at Queen's very much as a watershed with almost a completely new staff with modern ideas taking over. The professoriate was no exception: between 1918 and 1923 — my years at Queen's — Professor Sinclair retired and was replaced by Andy Fullerton; Professor Lindsay retired and was replaced by W W D Thomson; Professor Sir John Byers died and was replaced by C G Lowry (Midwifery) and R J Johnstone (Gynaecology); Sir William Whitla retired and was replaced by J E MacIlwaine, with Dr V G L Fielden acting in the interval for three years; Professor Johnson Symington, FRS, had a stroke and was replaced by Professor Thomas Walmsley, with Mr P T Crymble and Dr Margaret Purce filling in the gap for one year (Table).

Young men appeared on the corridors. H P (Harry) Malcolm came back from France: he had been trained by Meurice Sinclair in the use of the Thomas' splint, which he introduced into many of the wards. He wrote his MCh thesis on its use, with my help. My help, I should say, consisted in carrying enormous crates each weighing to me about one ton, containing X-ray plates, 15″ × 12″ each, of fractured femurs, all of which he had brought back from France. I think I could say that all of these glass plates were broken, some into small pieces!

'M is for Malcolm, the elegant Harry
So eager to work but so willing to tarry'.

— this last a reference to the fact that Harry Malcolm had a tendency to be slightly lazy. Before leaving him, a small personal incident is worth mentioning. When the

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TABLE

Heads of departments at end of World War I

Years of office	*Subject*	*Holder*	*No. of years*	*Temporary 'bridging' staff*	*Successor and period*
1886 – 1923	Surgery	Professor T Sinclair	37		Andrew Fullerton (1923 – 1933)
1899 – 1923	Medicine	Professor J A Lindsay	24		W W D Thomson (1923 – 1950)
1893 – 1920	Midwifery	Professor Sir John Byers	27		*Gynaecology:* Sir Robert Johnstone (1920 – 1937) *Midwifery:* C G Lowry (1920 – 1937) (1937 – 1951)
1893 – 1918	Anatomy	Professor J Symington	25	P T Crymble Margaret Purce	Thomas Walmsley (1919 – 1951)
1902 – 1935	Physiology	Professor T H Milroy	33		Henry Barcroft (1935 – 1948)
1909 – 1934	Biochemistry	'Brother John' (J A Milroy: Lecturer 1909 – 1925; Chair 1925 – 1934)*	25		D C Harrison (1935 – 1967)
1904 – 1929	Pathology	Professor W St C Symmers	25		A M Drennan (1929 – 1931)
1890 – 1919	Materia Medica	Professor Sir William Whitla	29	V G L Fielden	J E McIlwaine (Professor of Materia Medica and Therapeutics, 1921 – 1928)
—	Radiology	Dr J C Rankin (Nominal)			Dr R M Beath Dr F P M Montgomery (later Sir Frank Montgomery) Mr Ralph Leman

* 'Brother John' came to Queen's in 1902 as an assistant in physiology when his brother T H was appointed to the chair.

great day came for me to screw my brass plate to the railings of No. 1 University Square, I had to promise not to keep a monkey — not that I had any intention of doing so. I was taking over Malcolm's rooms and he had kept a monkey in the drawing room which at times had become 'free range': passers-by often wondered about this face at the first floor window, as it did not closely resemble either of the other inhabitants!

Symington was one of the leading anatomists in the UK at that time. He was also Registrar to Queen's and lived in the south wing of the main building which includes the old staff common room. He had had a stroke and had retired. For a year P T Crymble and Margaret Purce did the teaching, the former doing the skeletal and the latter the visceral anatomy — a bad arrangement. P T had come back from France where he had been not only a surgeon but also a radiologist; when he later became Professor of Surgery he still retained his interest in radiology and kept an X-ray apparatus in his own home.

'P's Percy Crymble, once Symington's student
An applied anatomical surgeon most prudent'.

As a demonstrator of anatomy he had produced the famous 'Man 50' — an anonymous dead body which had been put into a wooden coffin-like box, the box then filled with water, and the whole frozen and cut into 1" sections from the head to the knees. These cross-sections were used at every examination. It was thought that in a war this would be a help in tracing the course of the bullet from entrance to exit; today the CT scan does this for you.

P T and Miss Purce gave regular lectures but did not work much in the dissecting room, and this was why we all got to know Richard (Dickie) Hunter so well. Dickie had tried many things: formerly a student of art in Paris, at the outbreak of World War I he went off for a while to France as a stretcher-bearer with the Tyrone Red Cross Ambulance, and this of course entitled him to a grant to train as a medical student and he entered Queen's in 1915 and graduated in 1920. He then became an anatomist, an anthropologist, an expert in comparative anatomy and much else. He wrote a thesis on the tendo-achilles, tracing it from the lower animals on four feet through the monkeys until he reached *Homo sapiens*; in fact he hardly wrote anything at all because the whole thesis was a series of most beautiful hand-done artistic pen and ink drawings. He then wrote another thesis, this time on the inguinal canal, again tracing it from the lower animals to the humans, a most interesting thesis with marvellous illustrations. He had become attached to the zoo in Belfast and was able to get all the post-mortem material available. From this he got an interest in the circus, and when it was decided to have a Christmas circus in Belfast he was the obvious choice for ringmaster. He refused any actual payment, but each summer he went abroad, with expenses paid, searching out artists — a tight-rope walker from Hungary, a loose-rope walker from Norway, a juggler from Yugoslavia, and so on.

Dickie was a gourmet and when a bachelor colleague was getting married there was always a famous dinner before the event. I remember well going to the dinner for Cecil Calvert in the old Carlton Tea Room. It consisted of a hollow square, the four tables covered with scarlet linen tablecloths, a white skull at each corner, while the waiters were dressed up in operating gowns, masks and rubber gloves.

I saw a great deal of Cecil Calvert, since he and I as registrars were for a time responsible for all the emergency and night operating in RVH. We did this in turn on alternate nights. Sister Dynes the night sister — 'Diana' — had much to put up

with from us! But for all the pranks I admired Calvert greatly and felt he never got the recognition he deserved for his war service or for his pioneer work in neurosurgery in Ulster.

'C is for Calvert who'll debate half the night
Until he is sure he has diagnosed right'.

'D is for Diana — how weary her moan!
She wonders if Calvert will never go home'.

At this period Queen's had the most wonderful concert party of pierrots, mostly men out of my year, and some to become doctors of distinction. Dickie was one of their leaders. From an anatomy point of view, however, his career was less successful. When Thomas Walmsley was appointed in 1919 as a young man of 28, Hunter, who was four years older, was still a student though the next year he was appointed demonstrator in anatomy. It was understood that on the retirement of Professor Bryce in Glasgow, Walmsley would go back to take over the Chair of Anatomy there, leaving an opportunity for Hunter, but in the intervening three years a local young man called Nicholl with a great reputation came on the scene in Glasgow and Walmsley was passed over and remained at Queen's. Dickie now saw that he had no future in anatomy in Belfast. He did apply for Barts, and, I think, Charing Cross (and for a year had been demonstrator in anatomy at UCL), but unsuccessfully. He then decided to switch his interests and in 1937 he was appointed Secretary to Queen's. I think everyone would agree that he was the worst Secretary Queen's has ever had. I say this with all sincerity, having been a great friend and admirer of his. His portrait by James Gunn shows Dickie Hunter as we all knew him.

I should say in passing that poor Thomas Walmsley had a very rough time in his first two years here. The returning ex-servicemen resented him since he was not ex-service, and at one BMSA dinner, when the alcohol had been flowing freely, I saw him pushed against the wall and get a really brutal pummelling from some who had imbibed too liberally.

After 37 years in the Chair of Surgery, Professor Thomas Sinclair retired in 1923:

'S is for Sinclair, professor profound,
If once set agoing he'll talk the day round'.

It is true that after 37 years his lectures had become somewhat fossilised. He looked to me to be a very old man but this was misleading because he lived for another 17 years during which time he did much useful work, which included being Westminster MP for the University and a Northern Ireland senator. In his last years before retiring he would sit before an operation for a long time with his eyes closed. None of us knew why: some thought he was praying, others that he was revising his anatomy, and others again that he was just having a snooze, but when he came to do the job he did it meticulously. He enjoyed his time in France as a consultant surgeon and, although he never looked the army type, he rather enjoyed being addressed later as Colonel Sinclair. He had been appointed to this post on the advice of the Royal College of Surgeons of England — Fullerton incidentally had been selected at the same time by the Royal College of Surgeons in Ireland, when the War Office wrote to Dublin asking them for a nomination. One of Sinclair's incidents, which he often quoted, was when he did the post-mortem on Baron Manfred von Richthofen, the 'Red Baron', who, the Germans claimed, had made a forced landing behind our lines and had then been shot while he was still in the cockpit. Sinclair, with the help of Captain N C Graham

of Antrim — known to many of you as 'Koch' — was able to prove that Richthofen had been shot while the plane was still in the air. It is interesting that this is still denied 60 years later — in fact the incorrect version appeared in a German paper only two years ago.

Fig 1. Andrew Fullerton, CB, CMG, Professor of Surgery, 1923-1933, and President of the Royal College of Surgeons in Ireland, 1926-1928.

Although Fullerton had only a possible ten years in the chair, he was appointed as Sinclair's successor (Fig 1). The war had given him a reputation. He used to describe wonderful clinical meetings in the Boulogne area in which the cream of American medicine as well as the top French surgeons and physicians took part. This enabled Fullerton to make famous friends on both sides of the Atlantic, and it was a great honour when the Mayo brothers, Harvey Cushing, Percy Sergeant, Ernest Myles and many others later visited our school. One of these was Hugh Hampton Young of Baltimore to whom Queen's gave an honorary degree for his invention of the operation of perineal prostatectomy — the most dangerous, the most difficult and the most unsatisfactory method of prostate removal ever devised. We did two cases after he left: one died and the other did not survive. We abandoned the operation as did the rest of the world but it was too late to recall Young's honorary degree!

Andy Fullerton pioneered urological surgery in Belfast. Everything before the discovery of intravenous pyelograms had to be done through the cystoscope.

'A is for Andy of cystoscope fame,
Away in Coleraine they have now heard his name'.

He was an incredibly honourable man. He had a very small practice, possibly because his rather snappy manner did not ingratiate him to the general practitioners, but by and large he was much respected by the students and his junior staff.

Many of the Royal staff enjoyed their game of golf on Saturday at Newcastle, Co. Down. They foregathered for the noon train at the Belfast and County Down Railway Station; a game of bridge and a drink on the way down, lunch in the clubhouse, a round of golf, tea, back to Belfast between five and six o'clock to be collected by their drivers. The station was as crowded with Royal staff on a Saturday as the High Court is today on a Monday! They all did a quick ward round on Saturday morning in plus-fours, but no real problems were shown to the great men: these could be dealt with by the house surgeons and registrar after they had gone. Fullerton was captain of Royal County Down Club the year of the Prince of Wales' visit, had an historic round of golf with him, and was photographed with the Prince, both in plus-fours, on the steps of the clubhouse.

When Professor Lindsay retired, to be succeeded by W W D Thomson, a new atmosphere developed:

'L is for Lindsay our boss ausculator
At spotting a murmur there's no one is nater'.

Jimmy Lindsay was a tiny little bachelor. He wrote a book called *Medical axioms, aphorisms and clinical memoranda* (published 1923) and these must certainly always be produced by the candidate at an examination. If we did not know that a heart murmur was 'rough', rumbling and ingravescent' we need not appear before the examiner! Lindsay always insisted that the patient with pneumonia lies 'like a log in bed'. At one examination he is said to have asked the student 'How does the patient with pneumonia lie in bed?' The student replied 'Motionless, still [etc, etc]', but finally Lindsay could stand it no longer: 'No, the patient lies like a log in bed', to which the student replied, 'But, Sir, I have never seen a log in bed'.

One of the surgeons who was very much out on his own was Thomas Sinclair Kirk, a man with many original ideas, sadly not backed by any scientific support. He had a theory that a long-lived animal must have had some humoral protective power and so used to go down to the abattoir and collect blood from the slaughtered animals. The serum could then be drunk, which was rather nauseating, or dried into pellets.

'K's Tommy Kirk, students gather to hear him
Proclaiming the virtue of normal horse serum'.

As his house surgeon I have had the pleasure of drinking his serum and also eating the pellets, and all I can say is that it has done me no harm — so far! His wounds often went septic, as did many others at that time, so he filled the wound with one or two tablespoonsful of urea crystals with ample drainage. There was a profuse discharge for several days, the idea being that this urea would wash the wound free from sepsis. On one occasion, many months after a large breast operation, we found a series of nodules down the scar. These were thought to be secondary deposits, but on removing one or two we found they contained pieces of glass. It turned out that the theatre nurse had broken a bottle of urea and, being of a saving nature, she poured the contents into another bottle, including the broken pieces of glass!

Kirk held that wounds drained best downhill, and so the patients with a drain in their abdominal cavity had to lie on their face, which they did — so long as he was in the ward! There was, however, a very good spy system and so they were never caught out. He was a great person for non-absorbable material, silkworm gut, which we all disapproved of: burying this, we thought, was very dangerous. Today with antibiotics of course it is no longer a problem. On one occasion the ward was visited by a group of American surgeons. Kirk did a prostatectomy which, on this occasion, went off beautifully. The gland was enucleated with almost no loss of blood. The Americans produced their notebooks and their pencils and one of them said, 'Professor, we did admire your work very much. Could we have the name of the technique that you employed?' Kirk replied modestly, 'Oh, I always do a Horner's operation', and they said, 'Well, Sir, that is a new name to us, we have never heard of Dr Horner', to which Kirk replied, 'He put in his thumb and pulled out a plum'. The Americans folded their notebooks and slipped quietly away.

W W D Thomson, when he took over from Lindsay, certainly brought a breath of fresh air to the Department of Medicine:

'W's W W D,
An echo of Osler, his students agree'.

He was appointed on the same day as Fullerton, and the students gave a well-remembered rag in their honour. Unfortunately, in his first few years he suffered from a chronic illness called in those days 'mucous colitis'. I remember when Mr Lockhart-Mummery, the leading rectal surgeon in London, was brought over to operate on him. He did an appendicostomy, the only one I have ever heard of. The appendix was brought to the surface, the tip was cut off and through the open appendix a catheter was inserted each day and the bowel was irrigated with a dilute solution of albargin, which I think was a very mild silver solution. This was carried out each evening by either Harry Malcolm or Ted Lewis. Despite this, he later made a full recovery.

Although Sir William Whitla had retired before I went up to Queen's he was still living in great style at Lennoxvale though very crippled with an arthritis of the hip. I remember him well at a graduation ceremony when he came dressed as a Deputy Lieutenant — brass buttons, coat, knee breeches, tricorn hat, and at the same time a Queen's hood around his neck. He was always very fond of regalia and decorations, a contrast to his wife who frequently dressed in her sober Salvation Army uniform — which she once wore to a garden party at Buckingham Palace.

SIR WILLIAM WHITLA, M.D., J.P.

Fig 2. Sir William Whitla, JP, Professor of Materia Medica, 1890–1919, and general benefactor.

Sir William was a very interesting man (Fig 2). His daily readings were the Book of Daniel and the stock market — this allowed him to keep his options open for both worlds. He produced several books. His *Dictionary of Treatment* (published 1892), which was really a compilation with not much original work, was a best-seller. It went through twelve or more editions, including one in Chinese. It was a compulsory book for every sea-going captain in the Merchant Navy to have at his bedside – of almost equal importance to the Bible. Another book, *Elements of Pharmacy, Materia Medica and Therapeutics* (published 1881), was a great success in its early stages, but its last (14th edition, 1943) was a complete flop because modern pharmacy was just beginning to take over. No longer did we give 'Pot Iod. and trust to God'. I cannot stress too much his enormous generosity to the medical and academic professions — the Whitla Medical Institute, the Whitla Hall at Queen's, the Sir William Whitla Hall at Methodist College, the Vice-Chancellor's Lodge in Lennoxvale, endowment of Queen's pharmacology, to name only a few. In 1909, when he was elected

President of the British Medical Association, every doctor in Ulster on his breakfast table that morning received a free copy of his books — I still have the ones that were given to my father. Whitla was also a Pro-Chancellor of the University as well as our political representative at Westminster (1918-1923) — a man indeed with many sides to his character.

'W's our Whitla, who taketh the bun—
Writer, preacher and medico, rolled into one'.

Radiology in Belfast I always thought got off to a poor start. The first specialist was Dr J C (Johnny) Rankin: a brilliant man but a dabbler. He had too many interests — bacteriology, venereology and others — and the result was that this important specialty never got the start it deserved.

'R's Johnny Rankin who worked with X-rays
Not long after Roentgen discovered their ways'.

In my day, Maitland Beath was in charge with Frank Montgomery, after World War I, second in the department; but the really important person was Ralph Leman, the radiographer. This young Englishman had been discovered by Fullerton in France and brought to Belfast. He was an enthusiast and an expert. He used to put flowers into a solution containing iodine and then X-ray them, getting wonderful pictures of the sap rising up. He used to X-ray hens' eggs as they were being incubated under a hen which he kept in the department. He X-rayed a box of Dunlop golfballs showing that the central nucleus was not always dead centre. He also had some X-rays of old oil paintings, one showing how Cromwell with his austere garments had been overpainted on the lovely lace work and embroidery of Charles I: on X-ray, however, the elegant lace work could still be seen coming through on the picture. This well known lecture, which I heard on several occasions, was widely appreciated. Leman was the backbone of the X-ray department until modern radiology took over.

Maitland Beath was a very charming person. He was a very heavy smoker, and his terminal illness is of interest. He developed jaundice, and on a particular Saturday when his wife and family were out he decided he would X-ray himself. He summoned the maid and told her that in 10 minutes she was to come into the X-ray room, press a certain button, and then walk out. He then prepared himself on the table. The maid came in, did what she had been asked to do, and disappeared. He then developed the film, and saw a very large cancer of his lung. He destroyed the plate and then got back into bed and no one knew anything about it until much later. Sir Robert Johnstone had a very similar illness. He had his chest X-rayed, asked to see the film, and then said, 'I would say that from this I have got about nine months to live. I will go down to County Down as I want to die looking at the Mourne mountains'. And so he retired there and then and spent the last few months of his life at his bungalow at Newcastle.

The laboratory at the Royal, in the King Edward Building, was a very small affair, with Professor Symmers in charge of the morbid anatomy and Sir Thomas Houston in charge of bacteriology. Sir Thomas would work there into the small hours, gathering around him a lot of very faithful retainers:

'H is for Houston, Sir Thomas,the knight
Who wars with bacilli from dusk to daylight'.

In those days, as everyone was voluntary, totally unpaid by the Hospital, the physicians had to make a livelihood outside. They had little to offer except

experience, and they all to a man were general practitioners in addition to being consultants. With advances taking place in the laboratory a new appointment was made of 'clinical pathologist'. This was a man who could give a clinical opinion and at the same time take back to the laboratory the necessary material for his tests. This post was unpopular with the consultants — because the incumbent was able to do what they were not able to do — but popular with the general practitioners — because the clinical pathologist could come, see the case, carry out all the *necessary* tests (his critics would go so far as to say somewhat *un*necessary tests) and give the practitioners an answer the next day. The first incumbent was Dr J A Smith. Jack Smith had gone off to the war as a corporal, and qualified soon after his return. I can well remember him demonstrating insulin to us all for the first time. He had a series of rabbits, eight or ten, which scampered along the polished floor in the King Edward Building. He chased after them and gave them an injection of insulin. They all collapsed in a semi-coma. He then collected and injected each with a large dose of glucose, and the rabbits were soon able to amble or stagger quietly along the floor. That was in 1923 very shortly after Banting and Best had made their momentous discovery. Before that there was nothing to offer the young diabetic.

Soon after this I saw raw liver introduced for pernicious anaemia. I remember the first patient I treated, a man from Islandmagee who had been in hospital some eight or ten times and each time had had a blood transfusion. I was finally told by my chief to tell his wife that we had nothing more to offer. However, on the Sunday before he was due to go home I read in that week's *British Medical Journal* that if we gave raw liver, ground it up with some HP sauce as a flavour, then put it in a coloured tumbler (so that the patient would not see what he was getting) we might achieve some sort of success. We decided to give it a trial. After a few days he seemed somewhat better and after a few weeks he was able to go home on his liver diet and never needed to come back to hospital again.

When the Chair of Midwifery became vacant on the death of Sir John Byers (in 1920) it was decided to divide it into Chairs of Gynaecology and Midwifery, R J Johnstone taking the former and C G Lowry the latter. Sir John had a habit — a very good one — of bringing to his class the fresh specimens of an operation he had carried out that day, rather like a fisherman showing off his morning catch. His bag with the specimens was taken by his chauffeur to the classroom before the lecture. On one occasion, having described an enormous ovarian cyst which he had removed, he opened his bag but found that the students had replaced the cyst with an old pair of rugby boots. After that he brought the bag into class himself!

Dividing the Chair was a bad system, since the two subjects are so closely knit together, and the two teachers had at times conflicting ideas. They were very different men. Johnstone was born with all of nature's blessings — good looks, good manners, a quick brain, a brilliant speaker, a large private income. We can see now how easy it was in later life for so many honours to come his way: President of the British Medical Association, Member of Parliament at Stormont, to mention only two. By contrast, Lowry had a simple background — selfmade — but he got down to the nitty-gritty of any problem. It was he who was responsible for the Royal Maternity Hospital: this ensured that the students no longer needed to go to the Rotunda Hospital in Dublin for their midwifery. We cannot thank

Lowry enough for what he did for Belfast. He was pioneer of all that was good in the department:

'L is for Lowry — the women's Professor,
Balloonist and Tenter and Father Confessor'.

His lectures were a model for all to copy. Johnstone's lectures by contrast never lasted more than forty minutes. He considered that neither the cerebral cortex nor, indeed, the gluteus maximus, could stand a longer one! Johnstone retired in 1937 and Lowry was able to reunite the two branches under his professorship. It has remained a combined chair ever since. (Fig 3).

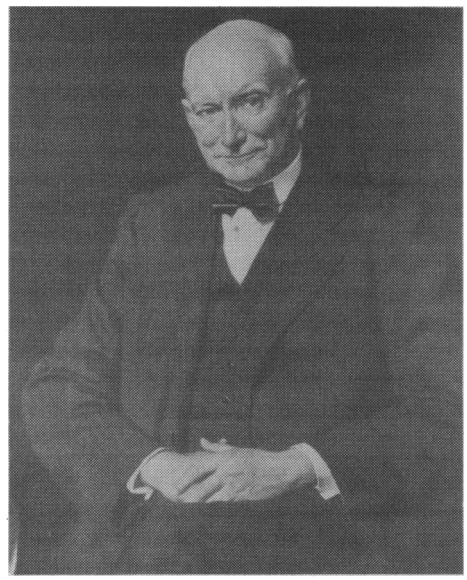

Fig 3. Charles Gibson Lowry, Professor of Midwifery, 1920 – 1937, and of Midwifery and Gynaecology, 1937 – 1951.

PROBLEMS

In surgery there were many problems. My operating list in the Children's Hospital every week had three or four cases of TB glands mainly in the neck — hard discrete lumps which we could dissect out leaving an almost invisible scar, or else broken down with discharging sinuses and no matter what we did a very disfiguring scar remained. I am always glad that one of our leading Ulster politicians, who appears regularly on the 'box', always shows the right side of his neck because I am responsible for some very ugly scars on the other side which I did when he was a young boy of five years!

I saw at least one new case of poliomyelitis a fortnight. Sometimes they would come in epidemics. It is incredible to think that today a drop of fluid on a lump of sugar means the disease is now never seen. We all became quite skilful at doing a tracheotomy because diphtheria was so frequent. Again, immunisation has been the answer. Phthisis, the hunchback, and TB glands have all virtually disappeared, now that there is a cure for TB. This work liberated beds in Forster Green Hospital, Musgrave Park, and the Whiteabbey Sanatorium. It was here that Harry Malcolm had a splendid clinic for bone tuberculosis in children, something he had learnt in France at Wimereux. Without these free beds the long-stay orthopaedic cases would have had great difficulty in finding accommodation. With the cure of so many infectious diseases, Purdysburn Fever Hospital is now able to give over one of its pavilions to be the headquarters for the radiological and chemotherapeutic treatment of cancer.

In those days we saw unsatisfactory treatment for cancer with much radium, radon and X-rays. Radium needles were terrible. For cancer of the tongue, some dozen rather stout short needles were stuck into the tongue for five days with a thread attached to the face. Radium we saw little of: this had to be brought from London. The radon tube (or seeds) only lasted at most 48 – 72 hours and sadly in the first 24 hours it lost half of its strength. One of my jobs was to meet the Liverpool boat in the morning and collect from the captain a radon tube in a heavy lead container. This was delivered from the Radium Institute in London,

put on the train at Euston and transferred by the guard to the captain of the Liverpool boat and hence via myself to Professor Lowry for use in cancer of the body of the uterus. The correct timing was essential. I would ring up to find if the Liverpool boat would be up to time. Professor Lowry then had his patient on the table so that when I reached the nursing home I had just to hand over the tube for immediate use. After she had had her full treatment the tube was removed and used on a non-paying patient at the Royal Victoria Hospital: the irony is that the main radiation was lost in transit from London to Belfast, so that neither the public nor the private patient got the maximum value! I also saw radium needles used in my own home when my father was advised to have a plaque containing them put on the palm of his hand, which he did, wearing it daily for six to seven hours for several days. He had a Dupuytren's contracture; the cause was thought to be young fibroblasts which could be killed by radiation.

It is easy to be cynical today, but we were all the mirrors of our time. I myself did many cases of lumbar sympathectomy for Hirschsprung's disease, which was complete nonsense. We tied off the blood supply to the stomach for peptic ulcer; the idea was to cut the sympathetic supply and so reduce the excess acid, as advocated by Hey of Manchester. It was not realised that it was the para-sympathetic and not the sympathetic that should have been cut!

Anaesthesia was rag-and-bottle. Induction by chloroform was followed by ether or sometimes a chloroform and ether mixture, or in some cases an ACE mixture — alcohol, chloroform and ether. Dr Fielden, the lecturer on anaesthesia, was experimenting with gas and oxygen, but many of us preferred the old-fashioned method because often the gas and oxygen did not give a very relaxed patient or, indeed, a very relaxed surgeon. Rectal anaesthesia was very successful for a time, supplemented by ether or chloroform, but Mr Kirk increased the dose so much that he was able to use rectal anaesthesia as a total anaesthetic for major operations which I am afraid most of us thought was very dangerous.

I have always thought that blood transfusion was very slow in being made available. Although the major blood groups were first recognised in 1901, it was still an experimental tool in World War I. To the house surgeon, a blood transfusion was almost as troublesome as the operation: he did the typing, collected a suitable relative to be a donor, and bled the donor into a flask containing a glass rod with some spikes on it. He gently rotated the flask for half-an-hour or so while the blood was being taken and until a yellow spindle of fibrin appeared around the glass rod, leaving defibrinated blood which of course could not clot. We used to rotate the flask on a gramophone turntable to save time! Other methods tried out in World War I were the Kimpton tube and the use of sodium citrate (rejected at first) which later became the accepted method. Another method was the Bazett-Fullerton tube. Bazett was a Canadian and Fullerton was our own Andy. This was a very simple method; a needle is put into the donor's artery and connected to the recipient's vein, and the donor's heart does all the work. The only thing that was missing was any form of measurement: one went on until the donor got pale and the recipient got pink! It was the Spanish Civil War that brought blood transfusion to the point which allowed us to start the National Blood Transfusion Service in 1939 under the care of Brigadier Sir Lionel Whitby with Dr Jack Beattie his No. 2, a man of my year at Queen's. This relationship sadly broke down after some months.

In my day, one surgical unit (of two wards) in the Royal was for males only and the predominant operation was a hernia. Howard Stevenson also went to the Throne

Hospital twice a week to do a further hernia list. I wonder if this operation is as common today — with better food, is the average workman a fitter man or has the forklift replaced the man's biceps and abdominal muscles? Another operation that has certainly decreased is the perforated duodenal ulcer. As a registrar I have done three cases in one night. In children, intussusception is less frequent than it was; better nutrition, I think, is responsible, as in the old days in that operation one nearly always found a mass of abdominal glands.

Venereal disease was an unsatisfactory condition to treat. Syphilis we treated with 914 (neo-salvarsan), a tedious and large intravenous injection, but there was nothing specific for gonorrhoea and so we used sometimes rather excessive irrigation and many of the complications were as much the result of treatment as of the disease itself. There used to be, every Sunday morning at the Royal, a group of 30 – 40 men all sitting waiting to have their urethral strictures dealt with, caused either by gonorrhoea or more often by its treatment. They were called 'the Sunday School class'. Almost overnight, in 1943, gonorrhoea was killed by virtually one massive injection of penicillin.

Fractures were a problem. One was inclined to make the limb fit the wooden splint rather than put the limb into plaster of Paris and make the splint to fit the fracture. The eponymous splints were a regular question in the final oral MB examination. The Thomas' splint was much used in Belfast, popularised by Harry Malcolm who had been trained by the great man in France. It was an awkward splint and often required twice-daily medical attention. It was used for fractures of the upper arm as well as of the lower limb. However, with the arrival of antibiotics, the nail, the pin, and either internal or external fixation could be used with safety, and so these splints gradually disappeared. Fractures of the neck of the femur were in many cases fatal. In Mr Kirk's ward the splint used was the long Liston splint which ran from the armpit to he heel. This dated, I may say, from the Crimea: it was not until the beginning of World War II that pinning of the neck of the femur became an everyday procedure.

The present magnificent Belfast City Hospital was in my day the Belfast Infirmary. It was a Poor Law institution and had to admit any case which came its way. I always thought it was unfairly dealt with and felt ashamed when asked by my chief to transfer to the infirmary the inoperable and hopeless cases. It became a dump and relationships between the two hospitals were never very amicable though these improved in 1948 with the arrival of the National Health Service.

With the easy treatment of syphilis, GPI has virtually disappeared. I remember a dramatic example of it in my day. He was one of our leading Belfast artists whose work was mundane until he developed the grandiose delusions of GPI when his pictures suddenly developed a new artistic flare. Today these fetch a large price. Sadly his artistic period lasted only a short time and he finally died in Purdysburn Hospital. Dickie Hunter was a close personal friend and it was he who sold his pictures to us. After World War I, malaria treatment for GPI was suggested: a troopship returning from the Dardanelles had several soldiers on board with GPI and it was found that those who had contracted malaria improved. When I was a house surgeon I remember taking one GPI patient from the Royal to Purdysburn Fever Hospital where there was a case of active malaria. We injected our patient with blood from the malarial donor at the height of a rigor. I brought him back to hospital in my motorbike and side-car. On the third day he took a rigor, as expected, but unfortunately he died. This treatment was advocated by a well-known Queen's graduate, an eminent neurologist in Harley Street at that time,

J Purdon Martin, who received an honorary degree from us four years ago, and who died two years ago in London aged about 90.

It is hard to realise that 60 years ago *acute sepsis* was virtually uncontrollable. I remember my father early one morning standing at the bottom of my bed before I got up, to tell me that a few hours earlier we had lost a very close personal friend. This doctor, who had brought me into the world, was a senior surgeon at the Samaritan Hospital. He had pricked his finger at an operation three days before — the red lines ran up his forearm and he was dead in 72 hours. This was almost an occupational hazard with surgeons and even more so with pathologists. One could do nothing: some tried multiple slashes in the arm hoping that the infected lymph would escape, but with no success. Occasionally one removed the arm with the same negative result. About that time London's most brilliant young thoracic surgeon developed this condition and allowed his arm to be removed knowing that he was forfeiting his career, but again to no avail. With *chronic sepsis* the result was much the same. In the Royal there was a tragic ward called 'Septics' rather hidden away from the main stream. It was a living mortuary: young and old all dying from amyloid or other complications of chronic sepsis — large discharging sinuses from chest, abdomen, bone, or joint, foul-smelling, from which the pus collected in either basins or dressings. Every ward tried to send its hopeless cases to 'Septics' from which no one ever came out alive. I little thought as I did my daily visit to that ward — the chiefs rarely went — that 20 years later I should be involved in the MRC team responsible for the first field trials of penicillin in Forward Surgery. Today with 'double-blind trials' I am afraid my technique for testing its efficacy in the field would not stand up to close scrutiny! However, with the wounded soldier, as far as I was concerned there could be no placebo. I am sure it is only those involved in surgery in pre-penicillin days who can genuinely say that it is without doubt the 'wonder drug' of this century.

Appointments to the Royal were made by the Board of Management — a group of some 30 people, but with only two or three medical staff representatives. Some were wealthy, conscientious and well-informed; some were wealthy but never turned up except to vote for a certain candidate whom they had been pressurised to support; some were of the Working Men's Committee, conscientious or otherwise — mostly from the shipyard, Mackie's, or one of the other heavy industries. The Board took a great interest in the hospital conditions and had a representative who visited regularly to whom complaints could be made — sometimes genuine, sometimes rather exaggerated. One of these gentlemen was called by us Mr 'Bedpan' Lavery: his usual report was that the patients had complained that the bedpan did not always arrive on time! All had to be canvassed, from the Lord Mayor living in splendour in Greenisland to the shipyard worker in Dee Street. I remember complaining of the selection methods to Professor Sinclair and suggesting that the medical profession knew more about one's abilities than the lay person. He was not very sympathetic. He said, 'You are lucky you have had to visit 30, I had to visit 60 in my day and, remember', he said, 'perhaps the broader the electorate the fairer the election' — something I have never forgotten. It was expensive getting 30 copies of one's testimonial printed and then hiring a cab to go to the outlying people.

The chief having to write testimonials for a large year must have found this a great nuisance. Some went to great pains and wrote a long personal letter; R J Johnstone, on the other hand, had a typed proforma made out in three grades — A, B and C — the grade you got depending on what he thought of you.

Mr Kirk had one which could mean anything, 'Dr So-and-So has qualified MB BCh — I am very glad. T.S. Kirk'. Influence *did* count, and many strings were pulled. One of the senior physicians to the Royal got his appointment because, when Lord Pirrie was recovering from an attack of typhoid fever, he was advised to go on a world cruise provided he took his personal physician with him, which he did. Later when there was a staff vacancy at the Royal Victoria Hospital Lord Pirrie insisted that this young man be appointed although many better qualified were available.

There were two grades of consultant — an *honorary* surgeon in charge of wards, and an *honorary assistant* surgeon in charge of outpatients, with no personal beds. There were five full and three assistant surgeons: these latter did two days each in the extern so that the week was fully covered. The junior surgeon had a loose attachment to one or more of the surgeons, for whom he did duty, and for whom he did the emergency and night operations. For this he was given four 'courtesy' beds in his own name but, in fact, he had operated on probably about half of the patients in the unit, since emergency work was then so frequent. The system was a bad one. The assistant surgeons with large outpatient clinics made contact with general practitioners from all over Ulster, and so developed large consulting practices: when they saw a patient who required surgery their problem was where he or she could be taken. At that time there were some 35 nursing homes in Belfast, admittedly some rather doubtful and some with no more than six beds but adequate: however, since the patients were from all over Ulster, home operating became a feature. I have memories of an appendicectomy in an elegant home in Holywood, a strangulated hernia in a cottage just off the beach at Whitehead, an extra-uterine pregnancy in Pomeroy, a suprapubic in Fivemiletown, an amputation of a leg in Maghera — and one could go on. While still a junior I had frequently gone with one of the assistant surgeons, and had learnt the technique. I should explain that the junior was quite an important person. Firstly, it was very useful if he could drive the car: this allowed the surgeon to sleep on the way home. Secondly, while the surgeon was examining the patient with the family doctor the junior could fix the scene for the operation — move the furniture, clear the ornaments off the piano and so on. (Usually it was decided not to move the carpet because it raised too much dust!). Thirdly, the junior could either assist at the operation or give the anaesthetic, depending on which the family doctor preferred. At times the family doctor could be rather a problem. One surgeon had a particularly long retractor which, as soon as the operation started, he put into the doctor's hand and said 'Hold that and don't move', thus ensuring that the family doctor was immobilised at a safe distance from the open wound! Some family doctors asked to give the anaesthetic but were somewhat incompetent, rather reminding one of 'the lady from the provinces' in Gilbert and Sullivan, 'who doesn't think she dances but would rather like to try'. I wonder if operating today in our ivory towers has lost some of the glamour of the olden days.

As a surgeon one had to buy one's own instruments and we were visited regularly by representatives of instrument manufacturers. I remember one saying to me, 'Sir, you are now doing better; don't you think you could afford to buy stainless steel artery forceps rather than those old chromium-plated ones you have been using?' Our expendable goods like catgut and silkworm gut we also bought at the door: the latter came in limited lengths because it was the total product of the unfortunate silkworm's parotid gland; the former we bought either in hanks or in

tubes. 'Throw-away' instruments had not yet been invented, and so scalpels, scissors, and other sharp instruments, even needles, had to be re-sharpened regularly. A retired police sergeant at Shaftesbury Square did most of this work for the Royal and for most of the surgeons.

I bought my first cystoscope when abroad. I told the supplier that I lived in Belfast and he said, 'That is very unfortunate, it will be £24 due to the 50% tax, but if you had lived in Dublin it would only cost £16', so I rapidly decided that I lived in Dublin, and asked him to deliver it to the College of Surgeons in Dublin, which he did. At that time my house surgeon, who was playing rugby for Queen's and was an Irish rugby international, would, I knew, have no trouble in smuggling it back on a Saturday evening among his dirty rugby football gear after a match in Dublin. This he did but it wasn't as easy as we thought.

Gloves, now expendable, in those days were used over and over again; in fact one day per week a side ward in hospital smelt like a cyclists' repair shop with the nurses sitting patching scores of rubber gloves. The best were mostly kept for the chiefs and the patched ones for the assistants. These patches had a tendency to fall off and sometimes at the end of the operation there was quite an exciting search in the open wound for these small pieces of rubber.

Administration in my day was very simple. The Hospital was run by two men and a boy — the boy in fact was a lady, Miss Lutton, and she was the link between the student and the university. There was no physical department of surgery or of any clinical science; it was all done from the Professor's house, so Miss Lutton had to keep all payments and class rolls in perfect order. She was indeed the students' friend. The two men were the secretary and the financial adviser. In addition there was a medical superintendent — in my day an old retired IMS colonel — a 'dug out': firstly Colonel Dean and later Colonel Forrest. There was an Assistant Professor of Surgery, a post which I held for three years. My main job was to collect the professor at his home in University Square, escort him across the road to the lecture theatre which was in the old Anatomy Department, install him and close the door. But it was not always as easy as that: I always had to have a lecture in my pocket for fear the great man was called away for clinical duties at the last moment. I remember on one occasion when I arrived he said, 'Tell me, what is your treatment for a strangulated hernia?' I said, 'Immediate operation'. He said, 'Yes, I must go at once, will you please carry on', so I went to the classroom and delivered a lecture that I had waited a long time to give.

Another of my duties for my £200 per year (the Professor got £500) was to arrange the clinical cases for the final examination twice per year. The Royal was easy, the Mater was most helpful and co-operative, but the Infirmary often made difficulties as they felt we were making use of them again! And there were other chores since in those days administration was so small. They say in the coal industry that there are 14 men behind the man at the coal face — I suppose in surgery it is now much the same, but fortunately we have not reached the stage of affairs as in America, if that statement I saw the other day is correct: 'We make progress when the administrators are asleep'.

OPINION

If I have described some of the problems of 60 years ago too much as a personal saga I must apologise, but this is as I saw it, and when one talks of the bad old days I sometimes wonder whether that is true. Science has advanced: the patient is clearly benefiting from modern technology. At times I wonder, however,

whether personal relationships are as happy as they were in my day. Surgery is undoubtedly much safer but at times I feel medicine is more dangerous. Advances bring success but also dangers. The drug firms send out the indications for the use of a certain drug. This occupies perhaps one line, but often there are three lines telling us what the dangers and contraindications are. When I look back at the discards in my own surgical lifetime I feel that the remarks of that famous Bostonian should be remembered:

> 'Do not forget that of the advances of today: fifty percent will be discarded in ten years time but sadly our problem today is to know what half to discard'.

Talking of 60 years ago, I am sure many of you will think a lot of this is 'old hat' but others may accept the remarks of Cicero:-

> 'Not to know what happened before you were born is ever to remain a child'.

If I have painted my teachers, colleagues and friends, warts and all, it was to show that these men had personality and originality as well as leadership. They taught us humanity at the bedside, they taught us technology on the blackboard, and by their example they taught the imponderable assets of good manners and integrity. To my teachers and to my father I owe a debt I can never hope to repay. Today it is often forgotten that the teacher of those days gave his time and his skill free of charge — he was a voluntary consultant; the only exceptions were the professors who had a small salary — not much more than a pittance — from the University.

I should explain that the scurrilous couplets that appear from time to time above come from three 'alphabets' dealing with the Royal staff. The first one was made at the turn of the century by R J (later Sir Robert) Johnstone. The second was 30 years later by Dr Hugh Calwell, late archivist to the Royal Victoria Hospital, and the third came some thirty years after that. With the law of libel as it stands today the author of this one will remain anonymous until after my death.